Attorney Docket No. 13DV-14080 (07783-0096)

B. AMENDMENTS TO THE SPECIFICATION

Please amend the abstract as follows:

ABSTRACT

~~The present invention is~~ A process for forming diffusion aluminide coatings on an uncoated surface of a substrate, without interdiffusing a sufficient amount of aluminum into a coating layer to adversely affect the coating growth potential and mechanical properties of said coating layer. A metal substrate is provided comprising an external surface and an internal passage therein defined by an internal surface, at least a portion of the external surface of the substrate being coated with a coating layer selected from the group consisting of β-NiAl-base, MCrAlX, a line-of-sight diffusion aluminide, a non-line-of-sight diffusion aluminide, a pack diffusion aluminide, and a slurry diffusion aluminide on said substrate. ~~The external surface of the substrate is cleaned.~~ The metal substrate is subjected to an [[a]] aluminum vapor phase deposition process ~~performed using a fluorine-containing activator selected from the group consisting of AlF_3, CrF_3, NH_4F, and combinations~~ thereof, at a ~~rate in the range of about 0.036 mols of fluorine per ft^3/hr of transport gas~~ to about 0.18 ~~mols of fluorine per ft^3/hr of transport gas, at a temperature in the range of about 1350°F (730°C) to about 1925°F (1050°C), using a transport gas selected from the group consisting of argon, nitrogen, hydrogen, and combinations thereof, the transport gas being provided at a flow rate in the range of about 20 ft^3/hr to about 120 ft^3/hr for a period of time in the range of about 2 hours to about 10 hours. The substrate is then cooled~~.